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Commentary

# Peritoneal Mesothelioma

## by Jacob Churg*

The data that I want to present deals with peritoneal mesothelioma or at least with tumors that might be classified as peritoneal mesothelioma. We have collected about 120 cases in this category. Cases of obvious carcinoma, such as mucous-cell carcinoma were rejected, and all other cases that could possibly be mesothelioma were considered. We have studied in detail 82 of these cases. About half of the material came from our Environmental Science Laboratory where there is great predominance—about 90%—of people who have asbestos exposure. The other half came from other sources submitted to the Mesothelioma Panel and there the rate of asbestos exposure was about 50%. Histologically, 75% of tumors were classified as epithelial type, 21% as biphasic, and 4% as mesenchymal or sarcomatous. However our certainty of diagnosis was not of that order.

I am not going to go into the histologic patterns of mesothelioma; they are of interest mainly to pathologists. Some patterns are acceptable to most pathologists as typical mesothelioma, and we saw such patterns in 32 cases, about 1/3 of the cases. In a further 28 cases, the pattern was suggestive but not typical, and in the remaining 22 cases it was quite atypical and very often non-specific or anaplastic. Because of that we had to divide our cases into definite, probable, and possible. On taking all available data into account, including gross findings and histochemistry, about 1/4 turned out to be definite, about 1/2 were probable, and the remaining 1/4 were possible. This includes all cases, autopsy and biopsy material, and there is much more difficulty with the biopsies. In the autopsy material (37 patients), we could classify 50% as definite, 33% as probable, and 17% as possible. Even after the autopsy, about half the cases could not definitely be established as mesothelioma. I think this is of importance, because the situation is quite different from what it was even 10 years ago. When we first began to recognize mesothelioma, there was great enthusiasm for this diagnosis, and any tumor that presented the gross characteristics of mesothelioma, such as diffuse growth in the pleura or peritoneum, was classified as mesothelioma even if the histology was atypical. Nowadays we are faced with both overdiagnosis and underdiagnosis. Quite a number of cases submitted to the Panel as mesothelioma were mucous-cell carcinoma and were rejected. However there remains quite a large indeterminate group that could be mesothelioma or could be carcinoma. This is very much what Dr. Stewart mentioned earlier *(1)* about the experimental animals, where there is also a great variety of lesions and one is not always sure of the nature of the particular tumor. I must add that it probably doesn't make too much difference as far as the patient is concerned, because the definite cases of mesothelioma, the probable cases, and the cases of carcinoma involving the pleura or the peritoneum behave more or less in the same way, and quite rapidly lead to the demise of the patient.

However, there is a small group of mesotheliomas which run a very slow course of

*Mount Sinai School of Medicine, New York, New York 10029.

several years' duration. Whether this is due to special biological features of the tumor or just to the greater degree of differentiation, I am not sure. These cases often begin with what looks like hyperplasia and, as a matter of fact, in the early stages of our investigation, we used to call them hyperplasia. Now it is obvious that many of them are true mesotheliomas and that they just take time to develop. Not all of them progress. If you recall, many years ago Stout *(2)* divided mesotheliomas into localized and diffuse, benign and malignant. At that time we all doubted the existence of benign diffuse mesothelioma; but perhaps Stout was right. We had at least one case where tumor nodules tended to hyalinize, and the tumor cells disappeared. We have another case now, incompletely studied, where the biopsy looked like definite mesothelioma yet at autopsy there was nothing except fibrosis in the peritoneal cavity.

While the number of mesotheliomas that we have studied is considerable, there still remains an indeterminate group which requires further study, especially more histochemical data and a better correlation with the clinical course.

## REFERENCES


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2. Stout, A. P. Discussion: asbestos and neoplasia: diffuse mesothelial tumors. Ann. N.Y. Acad. Sci. **132:** 680 (1965).